

NOTES ON SOME WESTERN ERYTHRONEURA
WITH DESCRIPTION OF THREE NEW SPECIES
(HOMOPTERA: CICADELLIDÆ)*

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Erythroneura inornata McAtee

Erythroneura inornata McAtee, W. L., Proc. Biol. Soc. Wash.,
Dec. 29, 1929, p. 133.

This species was named from a single male specimen taken at Ward, Colorado, by Doctor E. D. Ball. I collected thirty-one females and twenty-nine males August 8, 1933, about two miles northeast of Flagstaff, Arizona, on a low growing *Coenothus* sp. A comparison of these specimens with the type and an examination of the male internal genitalia proves them to be this species. A female from this lot is here chosen as the allotype.

Genitalia: Pygofer with two processes or hooks; smaller one on side with heavy base and slender sharp shaft; apical one long, with quite slender curving shaft directed toward other process. Style with small foot typical of western species, practically no heel and single point on toe. Oedagus large in lateral view, flat, quite broad, with swollen place on ventral side of base of shaft; short, sharp, retrorse, spine either side about middle and median ventral spine half way from these to tip and shaft ending in a dorsally bent spine slightly shorter than ventral.

Holotype in collection of Doctor E. D. Ball. Allotype in Snow Entomological Collection, Lawrence, Kansas.

Erythroneura aprica McAtee

Erythroneura aprica McAtee, W. L., Proc. Biol. Soc. Washington, Dec. 29, 1924, p. 132.

McAtee described this species from one female specimen taken in the Santa Rita Mts., Arizona. In 1932 I collected ten males and four females in the same locality which on comparison with

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the type proves to be this species. The following is a description of a male which is here designated as the allotype: general ground color semi-hyaline to yellowish white with orange to red markings. Vertex with apical round black spot, basal, rectangular orange spot next each eye mesally separated by narrow yellowish white band. Pronotum orange except basal band and three semi-circular spots on anterior margin, and sometimes a narrow median longitudinal band yellowish white. Scutellum with basal angles and spot near apex orange, extreme tip black. Clavi with basal anchor shaped orange spot and another elongated fumose spot tinged with orange midway between that and tip. Coria with costal margin orange to lemon yellow, including costal plaque; large rectangular orange spot bordering claval suture near its middle, hollowed out opposite dark area of clavus and brighter colored near apex of clavus. Tegmina more or less fumose on apical third. Venter stramineous.

Genitalia: Style with small foot, almost no heel and single curved point. Pygofer with but one rather heavy almost straight process. Oedagus large; shaft in lateral view very broad, slightly curved dorsally, tip rounded; ventral side with two processes, smaller one near middle, just before opening of duct, U-shaped; larger one leaves base at right angles then turns parallel to ventral margin of shaft for about its length, then ends in a sharp half U-shaped bend toward shaft.

This species is closely related to *Erythroneura milleri* Beamer but may be separated from it by the black spot on apex of vertex and black tip of scutellum. All the specimens were taken on oak.

***Erythroneura ritana* new species**

Slightly resembling *Erythroneura aprica* McA. in orange markings but does not have the black spot on apex nor black tip of scutellum.

Color: General ground color semi-hyaline to yellowish white. Vertex with basal band connecting eyes and projecting slightly forward on mesal line, orange. Pronotum with disc orange, lobe on either side and smaller anterior mesal one yellowish white. Scutellum with basal angles and tip orange or yellow. Clavi orange except small rectangular spot near tip of scutellum and another oval or rectangular one near tip. Coria with costa yellow, orange spot near tip of clavus and apices more or less yellowish fumose. Dorsum of abdomen dark. Venter stramineous, tip of ovipositor black.

Genitalia: Pygofer with two hooks, one marginal, other apical; marginal hook heavy, almost straight, half as long as pygofer; apical hook, smaller, about as wide as lateral, straight. Style with typical western foot; heel small, angular; toe short with single point. Oedagus large, shaft heavy, slightly curved dorsally, widest in lateral view, outer fourth narrows on ventral side to rather small tip; pair of ventral processes arise at base of shaft, extending slightly more than half its length and almost parallel to it.

Holotype male and allotype female Santa Rita Mts., Arizona, July 17, 1932, R. H. Beamer. Numerous paratypes both sexes same data.

This species was swept from blue oak. Types in Snow Collection, Lawrence, Kansas.

***Erythroneura huachucana* new species**

Resembling *Erythroneura quadricornis* Beamer but larger, usually with more red coloring and with but two processes on pygofer.

General ground color semi-hyaline to yellowish white, more or less fumose throughout. Vertex with pair of velvety black round spots surrounded by yellowish white bands, remainder dusky. Spots separated by slightly more than their own width. Pronotum mottled with fumose, an inverted W mark darker. Scutellum with black oval spot in each basal angle surrounded by lighter area, remainder dusky. Tegmina fumose throughout with semiblance of pair of oblique red strips bordering claval suture. Venter yellowish white with clypeus, mesosternum and some of abdominal segments black. Dorsum of abdomen black.

Genitalia: Style simple; heel small; toe ending in simple point. Pygofer with two hooks or processes and one seta; basal process short, parallel with margin of pygofer; apical one very long sickle shaped curving around apex of pygofer. Oedagus large, almost straight, shaft slightly narrower in middle, with 2 pairs of lateral process, basal pair three fourths as long as shaft, parallel with it; apical pair retrorse, joining shaft at 45 degree angle, about as long as shaft is wide, straight.

Holotype, male and allotype female Huachuca Mts., Arizona, July 8, 1932. R. H. Beamer. 19 female and 15 male paratypes same data. 6 female and one male paratypes Chiricahua Mts., Arizona, July —, 1932, R. H. Beamer.

All specimens were taken from *Coenothus fendleri*. Types in Snow Collection, Lawrence, Kansas.

***Erythroneura ceonothana* new species**

Resembling *Erythroneura abluta* McA., but with black spot in basal angles of scutellum and with distinct male genitalia.

Color: General ground color semi-hyaline to greenish yellow. Vertex with two circular velvety black spots on disc separated by more than one of their diameters and semblance of mesal longitudinal brown line. Pronotum with disc darker due to dark underlying membrane. Scutellum with semi-oval black spot in each basal angle. Elytra without distinct markings. Tips more or less fumose. Dorsum of abdomen dark. Venter, stramineous with clypeus, mesosternum and part of abdomen fuscous.

Genitalia: Pygofer with two processes and large spine, one on side smallest with heavy base and slender straight shaft; apical spine heavier and longer, bent near base to 45 degree angle to parallel tip of pygofer. Style with foot typical of western species; heel small and toe with one point. Oedagus large, shaft broad in dorsal view; pair of lateral processes at apex angled retrosely 45 degrees, straight about half their length then evenly curved out, total length almost equal to that of shaft. The length and curving of these processes easily separates this species from *E. huachucana* Beamer.

Holotype male, Chiricahua Mts., Arizona, July 8, 1932, R. H. Beamer. Allotype female, Huachuca Mts., Arizona, July, 1932, R. H. Beamer. Numerous paratypes from both places.

Like *Erythroneura huachucana* Beamer this species was collected from *Coenothus fendleri*. It may be separated from that species by being noticeably smaller, more evenly pale yellowish green in color without so much fumose marking and by distinct inner male genitalia.

Types in Snow Collection, Lawrence, Kansas.